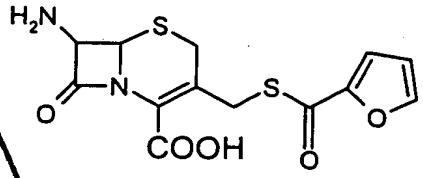
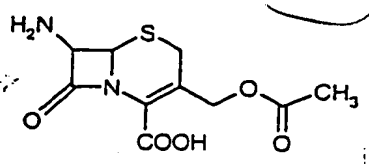
We claim:

1. A process for preparation of 3-[2-(furylcarbonyl) thiomethyl]-3-cephem-4-carboxylic acid represented by formula (I),

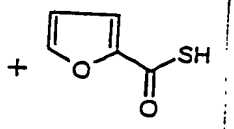


(I)

the said process comprising the steps of condensing 7-aminocephalosporanic acid (II) with furyl-2-carbonylthiol (III) in the presence of borontrifluoride at 20-50^{0}C in an organic solvent and isolating the compound of formula (I)



(II)



(III)

2. A process as claimed in claim 1, wherein the condensation reaction is performed at a temperature range of 30°-35°C.
3. A process as claimed in claim 1, wherein the reaction mixture of condensation is poured into ice cold water, adjusting the pH of the solution to 3-4 with a base to precipitate the solid.
4. A process as claimed in claim 3, wherein the pH of the solution lies/is in the range of 3.45-3.55.
5. A process as claimed in claim 2, wherein the solid obtained by precipitation is washed with a mixture of water and organic solvent, drying the solid at a temperature range of 40°-45°C under vacuum.
6. A process as claimed in claim 1, wherein furyl-2-carbonylthiol of formula (III) without isolating is used as its solution in an organic solvent selected from a group consisting of ethylacetate, methyl acetate, propyl acetate,

dichloromethane, toluene, diethyl ether,di-isopropyl ether and/or mixture thereof.

7. A process as claimed in claim 1, wherein the organic solvent used in the condensation reaction is selected from a group consisting of ethylacetate, methyl acetate, propyl acetate, dichloromethane, toluene, diethyl ether, di-isopropyl ether, acetonitrile, acetic acid or mixture thereof, most preferably ethyl acetate.

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8. A process as claimed in claim 1, wherein the condensing agent borontrifluoride is used in a gaseous form or its solution in an organic solvent selected from ethyl acetate, acetonitrile, methyl acetate, propyl acetate, dichloromethane, toluene, diethyl ether, di-isopropyl ether and/or mixture thereof, most preferably in gaseous form.

9. A process as claimed in claim 1, wherein 3-8 moles of borontrifluoride is used with respect to 7-aminocephalosporanic acid, the preferred molar ratio being 4.5:1.

10. A process as claimed in claim 3, wherein the base used is selected from a group consisting of ammonium hydroxide , sodium hydroxide, or sodium carbonate and most preferably ammonium hydroxide.

11. A process as claimed in claim 5, wherein the organic solvent used for washing the final product is selected from a group consisting of acetonitrile, ethylacetate, acetone, methyl acetate, propyl acetate, dichloromethane, toluene, diethyl ether,di-isopropyl ether and/or mixture thereof.

add B1

add C1